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# The Magic Lantern Gazette

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# Barack Obama's Magic Lantern Show

But even six months before the first votes of the 2008 election, there was no free-wheeling phase for Obama. His campaign was a **magic lantern show**, projecting something once real, and now sometimes hidden, onto a large blank screen.

Richard Wolfe, *Renegade: The Making of a President* (Crown Publishers, New York, 2009), p. 79.

I spend a lot of time reading books, some related to magic lantern and some not, but I must admit that the last place I would have expected to find a reference to magic lanterns is in Richard Wolfe's new book on Barack Obama's Presidential campaign. It just goes to show that while magic lanterns have largely disappeared, except in the homes of collectors and the minds of magic lantern scholars, the collective memory of the metaphor of the magic lantern show lives on. One wonders if even one in ten readers of Wolfe's book would understand the reference, now so much out of its own time and place.

This quotation doesn't have much to do with the contents of this issue of the *Gazette*, except that the Research Page focuses on a single theme, the use of magic lantern metaphors in literature. In contrast to the previous issue, this one contains only one long feature article. Mark Butterworth relates his adventures with a Master Brenograph projector, a multi-function device used in movie theaters. A version of this article previously appeared in *The New Magic Lantern Journal*, but most of our members do not get that publication, so Mark has kindly made it available of our readers (in editing this article, I have Americanized the spelling of some words).

The rest of this issue includes a potpourri of shorter items. Terry Borton and Larry Rakow independently had the idea to send in short pieces related to tough economic times for magic lantern exhibitors, a topic that seems especially relevant today. Bob Hall also contributed an interesting short article on how one of his eBay lantern slide sales resulted in some slides ending up in just the right hands. There also is a page of miscellaneous odds and ends related to magic lanterns, mostly contributed by Terry Borton and Lindsay Lambert.

In addition to a rather extensive Research Page section focusing on the magic lantern in literature, there are several book reviews of some exciting new books related directly or tangentially to magic lanterns, including a new publication from our sister Magic Lantern Society in Britain.

Finally, Terry Borton had the idea of gathering together as many different versions of the famous rat-catcher motion slide as could be found and presenting these in a photo essay, which appears in color on the covers and p. 23. There is no profound message in this piece, but this comparative look at a very familiar slide is one that might be done for other frequently reproduced magic lantern images.

This issue appears fairly soon after the previous one, but my goal was to use the summer to catch up to the point where the seasons designated on the cover reflect the actual season of the year. How long I can keep this up depends on my work schedule, but also on the contributions of members and readers of this journal. Long articles, either on some aspect of magic lantern history, or on your personal experiences in magic lantern collecting, are always welcome and normally will be published without much delay. So keep the interesting material coming!

I expect that in the next couple of issues, we will have some details of the planning for the next convention, which surprisingly is less than a year away, in Bloomington, Indiana in May. David Francis, Josh Marsh, and Dick Moore have been hard at work putting together an interesting program.

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Caldwell Farmers' Club Hall in Caldwell, Wisconsin, built in 1874, was a venue for magic lantern shows in the 19th century (see p. 12). Photo by Jeff Boer.

# The Brenkert F7 Master Brenograph Lantern

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**Introduction**

Pomona is a small town (population less than 900) in Australia, about 100 miles north of Brisbane, Queensland. Among its few tourist attractions is the Majestic Theatre. Claiming to be "The Oldest Authentic Silent Movie Theatre in the World", it has been running continuously since 1921. In the summer of 2005 I met the owner, Ron West, who after a brief chat agreed that, in exchange for access to the lantern and all its accessories, I would act as "Master Brenograph Operator" during his Silent Movie Festival (held annually each September for the last ten years). As a result I spent several pleasant afternoons cleaning, adjusting and projecting with the F7, enjoying endless opportunity to explore its many unique capabilities.

This article is intended to give a description of the lantern and its accessories. While built primarily as a movie theatre lantern, it owes many aspects of its design to the magic lantern and in the words of Jack Judson, "shows a clear and direct lineage from the biunial lanterns of the previous century."[1] Jack also described it as "the ultimate biunial lantern." The Master Brenograph F7 "…is so flexible in operation that an endless variety of novelties, presentations, scenic and colour effects can be produced by any projectionist who will study and master its fundamental operating principles…"[2]

Cosmetically, this F7 was not in great condition. Most parts had some degree of corrosion and deterioration. Although Ron rescued the lantern with accessories and slides he has not carried out any recent maintenance. However, almost everything worked perfectly with only the occasional electrical "hiccup".

**The Lantern**

The lantern (Fig. 1) was built by the Brenkert Light Projection Company of Detroit, Michigan. Their Operators Manual described it as "A master projector which enables the operator from his projection room to project to any part of the stage or front of the auditorium in any size or shape desired with a wide range of light intensity, any focused or unfocused object in colour either in animation or stationary except the motion picture film."[3]. It is simplistic to describe the Master Brenograph F7 as a biunial lantern, although it has all the major characteristics of a double lantern. It may be more accurately described as a pair of parallel optical benches.

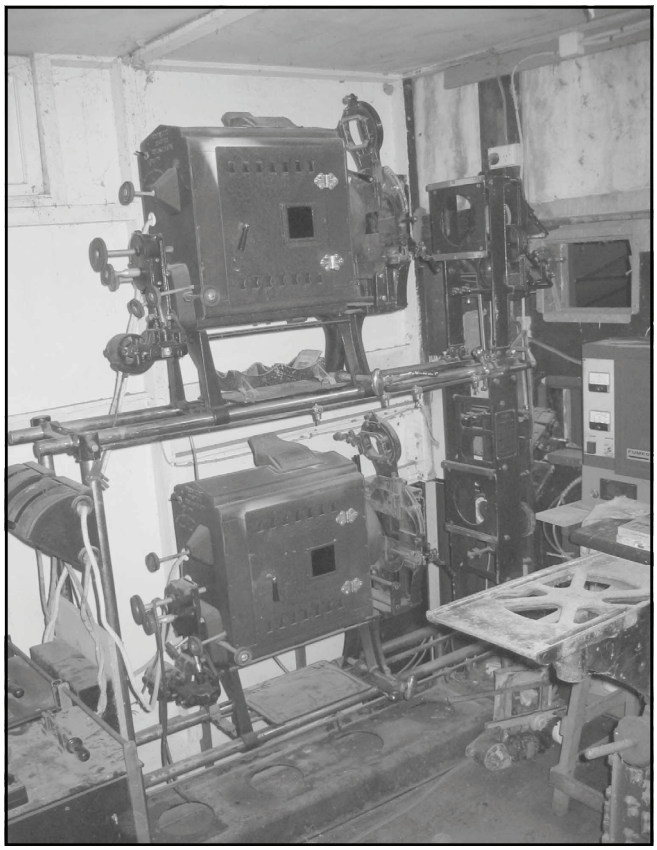


Fig. 1 The Master Brenograph F7.

The F7 is composed of an upper and lower lantern, joined together and identical in every respect but in operation the two systems are entirely independent – the only direct linkage being a fader diaphragm at the front. Each lantern consists of a lamp house, shutter and effects holder, a front upright assembly, and front projection assembly. The whole lantern assembled stands 73 inches high and is 82 inches

long. It is designed to be operated from the right hand side looking towards the screen or stage.

**The Lamphouse**

The lamphouses (Fig. 2) hold 75 ampere vertical feed carbon arc burners. For this size of burner, copper coated rods are used. As well as the normal set of adjustment controls the carbon arc burners feature magnetic relay arc controls. These were not wired on this lantern but properly set-up they automatically adjust the carbon arcs for continuous maximum light. My experience operating the lantern was that the arc feed needed adjustment every 30 to 45 seconds. It was easy to concentrate on working the slides and effects and suddenly run out of light. The lamphouse doors had the normal cobalt glass for viewing the burner and these worked very effectively. The lamp house also contained a small electric light, used when setting up the burner or changing rods. The front of the lamp house contains a six inch condenser lens with what Brenkert described as a "dowser shutter", operated by a small lever on the outside of the housing. This was a solid circular shutter that could be lowered between the burner and condenser, acting as a fader.

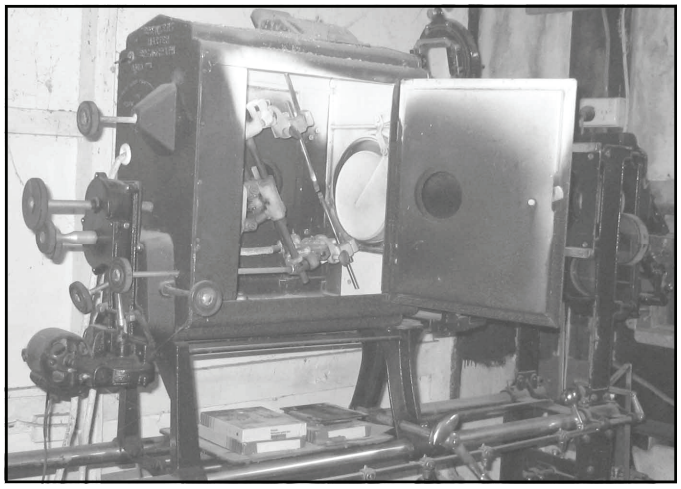


Fig. 2. The lamphouse, showing carbon arc burner. The condenser lens is covered by the dowser shutter – used for fading. The Automatic Arc Feeder Mechanism can be seen at the back of the lantern below the normal manual arc controls.

On the Majestic Brenograph, immediately in front of the condensers are heat sink liquid tanks (Fig. 3). The tanks were designed to be filled with an alum based solution. They are on sliding rails, so can be moved in and out of the light path. None of the Brenograph publications I have seen mentions this system, but it is certainly an original accessory. The heat output from the 75 ampere burners is prodigious; a standard slide is at least 10 inches from the arc but still reaches a very high temperature without the heat sink in place.

Fig.3 (right). Heat Sink tank located on a sliding rail. Shown here pulled out to the left side of the F7. An advertising slide for "Gone with the Wind" can be seen in the slide tray.

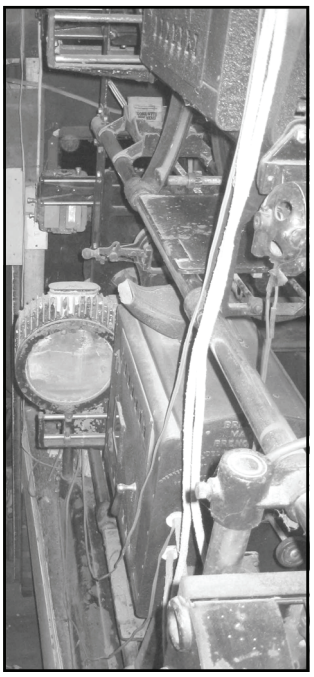
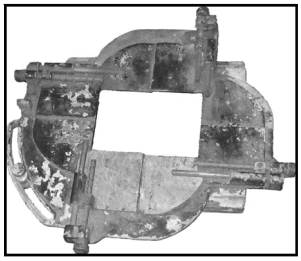


Fig. 4 (below) Preset Adjustable Framing Shutter.



**The Shutter and Effects Holder**

Immediately in front of the condenser lens this assembly has a series of slots or holders. First from the condenser is the shutter compartment. This can hold a pre-set iris or framing shutter. The framing shutter (Fig.4) comprises of an assembly with four independent adjustable sides. The individual shutters are adjusted to control light "spill" off the edge of the screen or to set the image up to only cover a portion of the screen. By careful adjustment of the shutters together with adjustment of the front mirrors (see below) the pair of lanterns can be set to project slides for dissolving views or with the images side by side.

The preset adjustable iris shutter (Fig.5) is typically inserted if the lantern is being used as a spotlight. Adjustment of the aperture allows the operator to vary the precision of the light circle and edge.

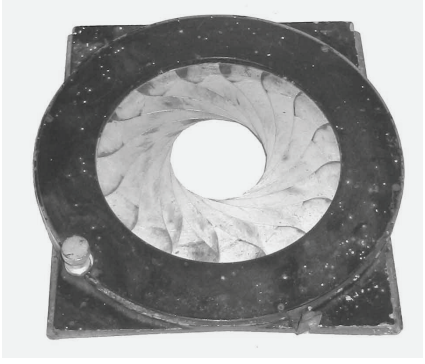


Fig. 5. Preset Adjustable Iris Shutter.

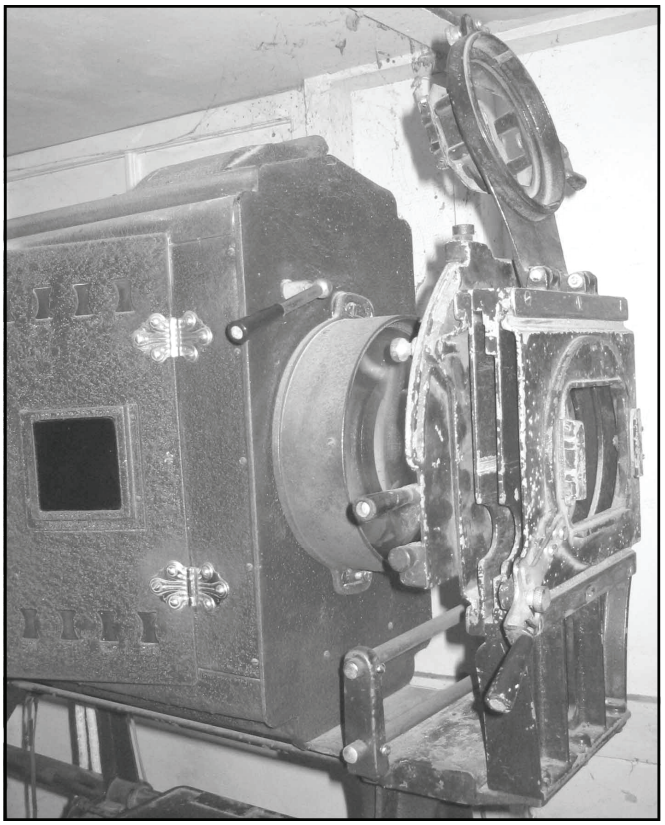


Fig. 6 Shutter and Effects Holder, showing compartments for slides and accessories. The handle on the lantern body operates the dowser shutter. A slide carrier for 4" by 5" slides is in place. A holder for 4" by 3.25" slides is swung up, out of the projection path.

Following the framing shutter holder is a mask compartment for holding a screen border or special masks. Next there is an effect holder compartment for glass design plates, animated scenic effects and stationary colour frames (see below). Finally there is a slide carrier for 4" by 5" slides. This can be replaced by a hinged carrier for standard (U.S. size) 3.25" by 4" slides. There are also inserts for English size 3.25" by 3.25" slides.

It is normal to use the framing shutter and not uncommon to use the mask compartment and effect holder and/or slide carrier simultaneously.

**The Front Upright Assembly**

The Front Upright Assembly (Fig. 7) comprises an effect holder slot which is used with blending colour wheels or other similar effects (see below). These effects are designed to project out of focus and the assembly holder is positioned to intercept the light path at its narrowest point after exiting the condenser.

**Front Projection Assembly**

The Front Projection Assembly (Fig. 7) is a turret holder for four, 4" diameter projection lenses of varied focal lengths to cover different projection distances. The turret has an indexing device to immediately register each lens as it is turned. Both lanterns have an identical set of lenses. Brenkert supplied lenses from 10 inch to 29 inch focal lengths in steps of 1 inch increments and from 30 inch to 40 inch in 2 inch increments. The Majestic lantern had pairs of 40 inch, 26 inch, 20 inch and 15 inch focal length lenses. These were used as flood/spot lenses, lantern slide projection lenses, moving scenic effect lenses and for colour effects on the draw curtains or proscenium arch. One 15 inch lens was broken on this lantern.

The iris dissolve assembly is operated by a handle on the centre rail and opens/closes iris shutters on each lantern for dissolving effects. The linkage has two settings for quick or slow dissolves.

Immediately in front of the projection lenses is a mirror inclined at 45 degrees. On the upper lantern this mirror reflects downwards and on the lower lantern it reflects upwards. Six inches from these mirrors are a second, again inclined at 45 degrees to project the image forwards. So, on the upper lantern the light passes through the front projection lens and then hits a 45 degree mirror and is angled downward. After six inches it hits a second 45 degree angled mirror and is projected forwards.

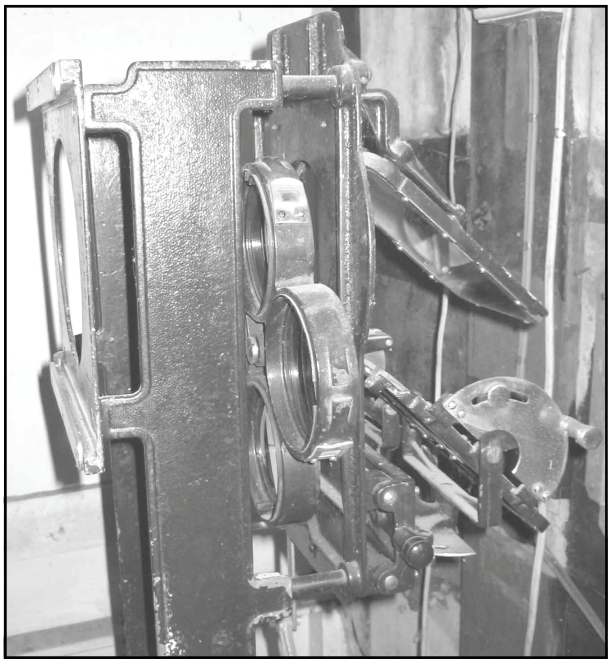


Fig. 7. Front Upright and Projection Assembly with turret lenses and pair of 45 degree mirrors. The slot for Blending Colour Wheel is on the left.

On the lower lantern the set-up is reversed. The mirrors are surface coated to prevent internal glass reflections. This mirror arrangement has two benefits:

First, the vertical separation of the lanterns is much reduced when the images are projected out the front. The two lanterns are approximately four feet apart, but the two images are projected out about 15 inches apart. This helps with image alignment, parallax, and focusing/fading effects. The front mirrors are all fully adjustable up and down and side to side, making alignment very simple.

The second mirror on both lanterns actually is a pair of side-by-side mirrors on a sliding rail. This means that without any adjustment on either lantern, the mirrors can be immediately pulled across to move the projected image to another surface in the theater. For example a slide projected on the screen from one lantern can be instantly "flipped" by sliding the mirror, so that it moves to being projected on the ceiling. Flipping the second mirror on the other lantern can immediately put a light onto the orchestra pit or conductor or announcer. With practice and careful setting of the mirrors it is quite easy to move images around the theater walls and ceiling instantaneously.

**The Lantern Assembly**

The two lantern assemblies are mounted on parallel rail systems. Along each rail the lantern housing can be moved backwards and forwards by a rack-and-pinion turning handle. This is how the image is focused. There also is a series of moveable indexing pointers. These can be preset so that the lantern housing can be immediately focused on different projection surfaces: the proscenium arch, draw curtains, or screen, when making changes in projection lens focal lengths. A slide holder fits across the focusing rails for the storage of 3" by 4" or 3.25" square lantern slides.

**"Standard Slides"**

In its simplest application the F7 can project "standard" lantern slides, either USA or UK sizes. This would normally be used to project cinema advertising slides, forthcoming features, local advertising etc. These were produced in the thousands by a myriad of manufacturers.

Slides specifically produced for the Brenograph F7 were normally made by Brenkert, Maurice Workstel or The General Transparent Display Company. These slides measure 5 inches by 4 inches and were typically made in themed "pairs", either black and white or colored. The themed pair concept is a set of two slides representing a positive and negative image of each other (Fig. 8). Projecting the two slides simultaneously in prefect registration would give a white screen. However, introducing a color filter into each lantern produces outlines

Fig. 8. Pair of Positive and Negative 4" x 5" Slides.

and shapes. Adding a blending color wheel to one or both lanterns produces scenes with changing light. Using colored matching-pair slides can produce very sophisticated changing scenes. Workstel produced dissolving sets of up to twelve slides showing a scene with sunsets, haloes, coloured clouds, aurora, and other atmospheric effects. In the hands of a skilled lanternist, the possibilities are endless.

There also mask are slides so that only the proscenium arch is covered by the projection, or only the center of the screen. This would allow you to show an ordinary slide or movie on the screen while the proscenium is illuminated with a chromatrope or other effect.

The Majestic collection contains around 300 pairs of slides, about 120 sets in color. The range of subjects is phenomenal, from simple geometric patterns to complex scenes and illustrations.

My favourite was the Devil rising from the flames (Fig.9). This was a pair of colored slides. One was projected through each lantern with a colour wheel. The two contrasting images were then dissolved in and out of each other. The "positive" and "negative" colouring in the slides means that in one lantern the figure of the Devil is continually changing with the colour wheel, in the other lantern the foreground and background change. The combined effect is quite dramatic. When I used this pair at the Silent Movie Festival, Ron played appropriate dramatic music on the theater's Wurlitzer.

Fig. 9. Devil Slide.

**Glass Design Slides**

Design slides consist of a pane of glass (or matching/ complimentary pairs) placed in the effect holder to distort the image or color effect. A simple "bee's eye" effect slide is very effective when projected with a revolving colour wheel. Embossed effect slides were produced showing scenic views which could be projected with colored filters to give pseudo-three dimensional images.

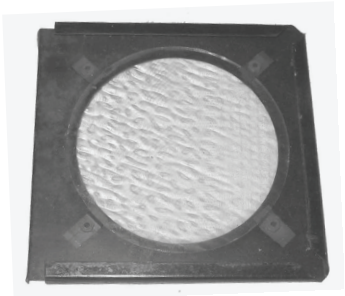


Fig. 10 (left): Glass Design Slide. Fig.11 (right): Embossed Glass Slide.

**Animated Scenic Effect Slides**

These consist of an aluminum canister (similar to a movie reel container) with a clockwork drive mechanism. The canister contains a mica sheet, hand painted with one of a large number of available designs. This is connected to a clock work drive mechanism. The exterior of the clockwork housing has a mechanical on/off switch.

These are used in the effects holder. Once slid into place, turning the on/off switch begins to turn the mica disk in front of the lantern. The entire housing canister can be rotated around its holder. This allows the rotating image to appear on the screen either moving from left to right, right to left, top to bottom or bottom to top, even diagonally. The clockwork mechanism has only one speed.

The canister can be opened and the mica disk changed. This means only a few clockwork canisters are needed with a collection of mica disks. The Majestic collection of mica disks included clouds, aurora, snow, birds, fish, waterfall and a pair of wonderful but damaged country side scenery disks. One disk is drawn as a landscape in daylight, the other at sunset. These would be used with a panorama train slide to give the "dissolving view" effect of a train moving through the countryside from day into night. Brenkert made electrical driven animated slides, but there are none in the Majestic Collection.

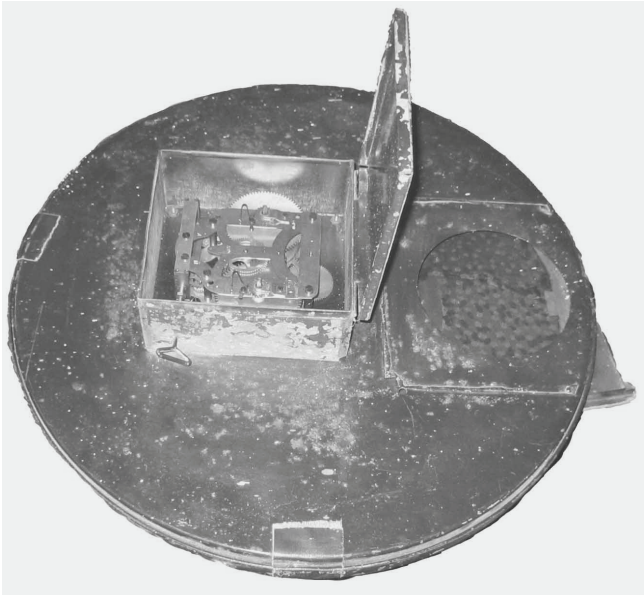


Fig.12. Animated Scenic Slide of Flower Petals Showing Clockwork Drive.

Fig.13. Hand Painted Mica Disk for Animated Scenic Slide Carrier—Clouds.

**Panorama Slides**

The Majestic had a small collection of panorama slides. These measured 18" by 5". There was one train slide to use with the landscape disks described above. One panorama slide was a night time view of Manhattan, with all the skyscraper windows lit up. Ron believed this was used with a static boat slide and would have been part of a dissolving view set. The collection also included a superb hand coloured panorama photograph of the Louvre in Paris. Measuring 18" long it contained exquisite detail.

There were two carriers for panorama slides. One operates in manual or clockwork , the second was an electrical carrier that drives the panorama slide through using a motor. While undoubtedly a Brenkert accessory, there is no mention of this item in any Brenkert catalogue that I have seen.

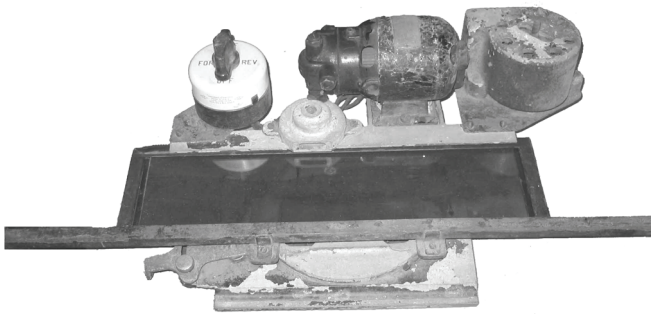


Fig.14. Electric Panorama Slide Carrier with Hand Painted Louvre Panorama Photographic Slide.

**Blending Color Wheel and Gelatine Color Holders**

The Front Upright Assembly was specifically designed to accept the Blending Color Wheel or Gelatine Color Holders. The color wheel is clockwork driven. Consisting of 12 separate color segments, it is used to give a constantly changing "rippling" color effect on the screen. Used in conjunction with the positive/negative slide pairs, or even one of the Animated Scenic Effect slides, it can produce startling, constantly changing scenes. I frequently used a color wheel on each lantern with slide pairs, to great effect.

The Front Upright Assembly also can be used for single-color gelatine color holders, used either in conjunction with positive/negative slide pairs or Animated Scenic Effects.

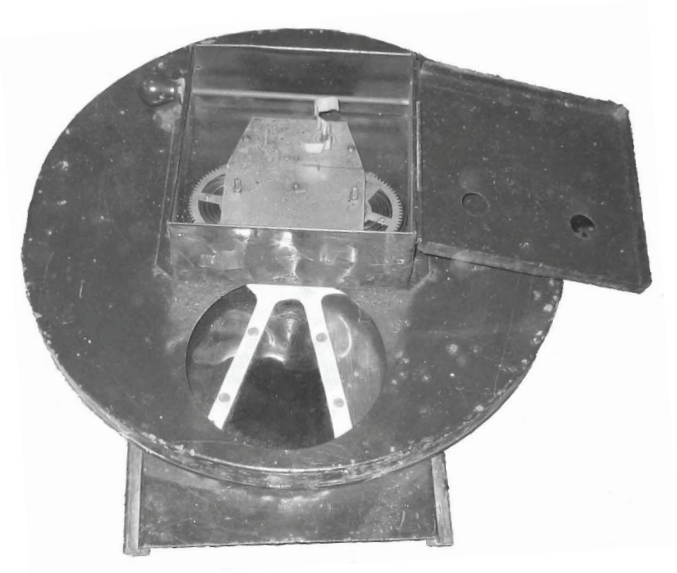


Fig.15. Blending Color Wheel.

**Other Accessories**

Two accessories that Brenkert produced that were not in the Majestic collection were a Star Shutter and Lobsterscope. The Star Shutter is an adjustable diaphragm shutter in a star shape. Operated by a side lever, it was typically used for projecting onto the curtains or organ console. It is described as producing "charming effects." The Lobsterscope has an opening diaphragm in a similar shape to an opening eye. Fitted with a rotating handle, it was used to quickly flash light onto the organ console, orchestra pit, or stage during musical numbers or acts.

Aside from its use as a projecting lantern the F7 was also frequently employed as a spotlight and by use of the iris shutter mentioned above it could cover the wide range of

uses a normal spotlight would cover. Gelatine Colour Holders could also be utilized with the spotlight.

**1924: A Typical Evening at the Cinema**

This lantern came from the "Prince Edward Theatre" in Castlereagh Street, Sydney. Owned by Paramount, the theater opened in 1924, showing *The Ten Commandments* on the first night. Ron rescued the lantern from the theatre after its closure in 1965.

The audience was expected to be seated by 8:00 PM, and the entertainment began. It started with a "Celebration Talk" which lasted four minutes. Then, Eddie Horton, American organist, entertained the audience with three numbers, *Berceuse*, *Australian Maid*, and *My Hero*. By 8:14, it was the orchestra's turn. Will Prior, another American, conducted the 20 piece band in *The William Tell Overture*. Brenograph projections accompanied the music.

This was followed by a live prologue, illustrating the visitation of one of the plagues of Egypt. This featured Eric Harrison as the Pharaoh, and was augmented by the appearance of Vera Bain as his favorite dancer and Pauline Miller and Stella MacPherson as slave girls. The prologue lasted a few minutes. Then it was time for the main entertainment. At 8:26, the silent film, *The Ten Commandments* was shown. The film was accompanied by the live orchestra playing a soundtrack arranged by Will Prior.

A short interval interrupted the movie. The audience would gather in the lavish lobby by the fountain, laughing, talking, smoking or eating. An Egyptian gong sounded to summon them back into the auditorium for the conclusion to the film. The whole evening was rounded off by a rendition of "God Save the King" played by the orchestra and sung by the audience following words on the screen.

This program was performed twice a day, at 2:00 PM and 8:00 PM, for 36 weeks. The film and the theater were both very successful and popular in Sydney. The theater held approximately 1200 people and was considered "small," especially by American standards. Depending on the complexity of the projection, the lantern images might be played on the proscenium arch, curtains, screen, or ceiling.

During the 2005 Silent Movie Festival the format was somewhat similar with Brenograph shows before the screening, between movies and during the interval and audience departures. It was the first "live" show for the projector in several years. The Festival program included Lon Chaney, Valentino, Keaton, Langdon, Laurel and Hardy and some early Australian silent films.

I found the lantern very simple to operate, but had to continually remind myself to adjust the carbon arc burners. Fortunately Ron had an extensive stock of rods. It was also quite difficult to coordinate operations between the projection room and Ron on the organ at the front of the theater (some 120 feet away). He was skilled enough to adapt the music to my errors. It also is important to make sure the clockwork drives are wound up.

**Conclusion**

The Brenograph F7 is really unlike any conventional biunial lantern; although capable of all the applications of a normal lantern, it can do much more. Its size makes it a permanent fixture and therefore unlikely to ever be seen unless you are fortunate enough to be invited into the projection room of a preserved cinema.

However, its capabilities are also greatly enhanced by its size. The separation of the two lanterns allows the large circular animated clockwork slides to be used, while the mirror system at the front means the resulting light exits the lantern at a fairly conventional biunial separation. The ability to immediately change the front pair of projection mirrors adds a new dimension to projecting, allowing dissolving views to be almost instantaneously swapped to project side by side images. Additionally on each lantern there is the equivalent of four slide carriers, all capable of being used at the same time. The possibilities with a Master Brenograph are limited only by the operator's imagination. To quote the manual: "…it would be an endless task to enumerate in detail all the varied results to be obtained by its use."

Operating the lantern is not without some difficulties, however. The size of the lantern makes the accessories quite large, and some are very heavy. Changing the animated slides or electric panorama carrier on the upper lantern can be awkward and difficult. I operated the lantern in a small projection room with a corrugated tin roof, in a tropical climate at around 30° Celsius. After just a few minutes, with both carbon arc burners running, the heat in the confined space was pretty unpleasant.

Despite all the interesting features and fantastic effects this lantern could achieve, it main purpose was limited to those brief periods while the audience arrived, departed or waited for the next feature. Designed to be used in the great theaters of the 1920s and 1930s, its life was relatively short. Probably only a handful of examples exist today, and even fewer are in working order or regular use.

**Acknowledgements**

It was my privilege to experience the Brenograph first hand, complete with carbon arc burners, a rare opportunity for any enthusiast. For that, my sincerest thanks to Ron West. Since I last visited the Majestic, Ron has sold it to the local

Chamber of Commerce. Moving from private to public ownership opens the theater up to many sources of public funds and grants. The future of the theater and its Brenograph are assured.

Finally, I should mention that on my first sight of the lantern, a snake was comfortably curled up around the upper rails. Ron "shooed" it away, assuring me it was a completely harmless carpet species.

**Notes and References**

1. Jack Judson, The Wondrous Brenkert Master Brenograph, in: *Realms of Light*, ed. by Richard Crangle, Mervyn Heard, and Ine van Dooren. (The Magic Lantern Society, London, 2005), pp. 211-213.

2. *Projectionist's Operating Manual for the Brenkert F7 Master Brenograph.* Brenkert Light Projection Company, Detroit, 1928.

3. *Ibid.*

4. *Brenkert Projectors and Effective Lighting Catalogue No. 26.* Brenkert Light Projection Company, Detroit, 1929.

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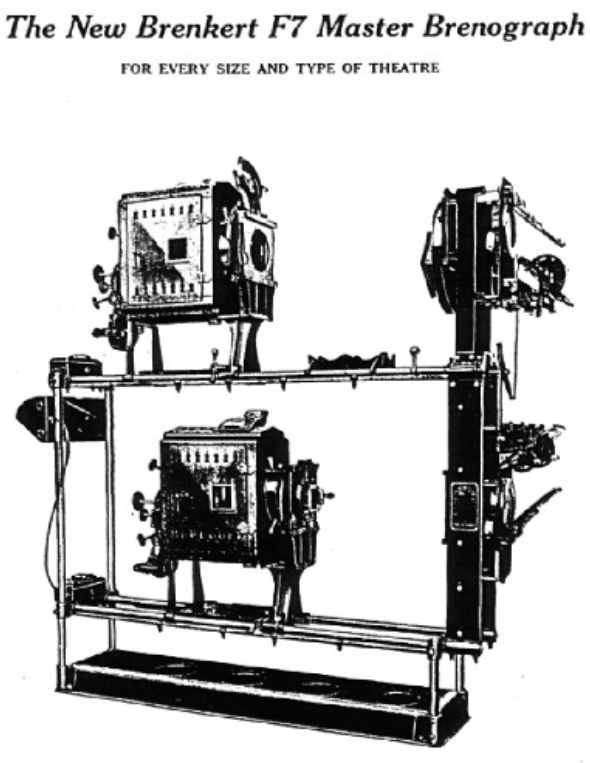


## An Amazing eBay Story

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Those of you who frequent the magic lantern listings on eBay know that we have been selling off much of our collection of 40,000+ slides for some years now. Our interest in magic lanterns has not waned, but our interest in moving some day has increased. The weight of moving this many slides and the room for storage would become a real problem. So we picked out what we wanted to keep and the rest are slowly going away.

Occasionally we receive interesting and sometimes heartwarming notes from people telling us why they bought certain slides and how much they mean to them—but nothing like the one that follows! We had sold this man a collection of Presbyterian Missionary slides with accompanying scripts to be rented by churches for a nominal fee and shown to their congregations to raise money for the missionary endeavor. The subject was Cuba.

> Bob,
>
> You and your wife can have no idea how unbelievably "full circle" this find is for me. I have been working on a book about the Maine explosion for over 15 years! The book will be an important contribution to the history of both my native country and my adopted one.
>
> I had never seen a lantern slide of the Maine entering the harbor, which is what caught my eye in the first place. But I can tell you that in my research I am familiar with the original photograph it is based on and who took it. The taking of it and the circumstances surrounding that moment are to be explained in my book. But there is more...
>
> It turns out that after the Spanish American War, my great-grandmother, Mariana Sanchez, took refuge with her children (my grandmother among them) in the town of Cardenas under very destitute circumstances caused by the war. Presbyterian ministers who were there on mission helped her out and eventually she converted from Catholicism to the Presbyterian faith. As a consequence my entire family was born into the Presbyterian Church. This aspect of my family history is something I have been researching as well for all my life. Well, guess who was the minister who helped my great-grandmother? Dr. Wharton,

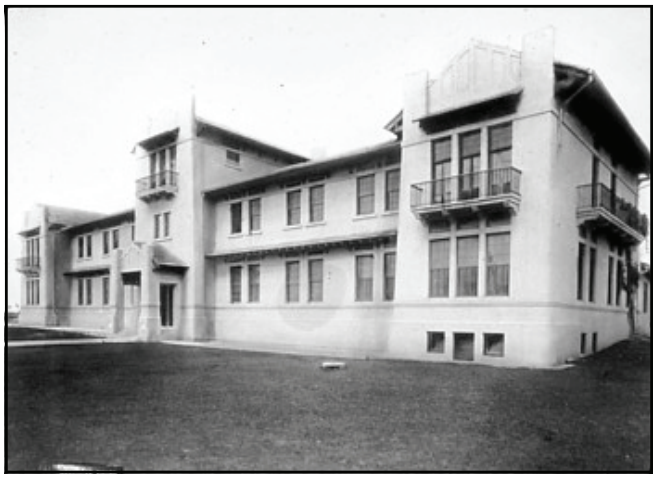
who is pictured in slide 24!! My mother told us all about Mr. Wharton while we were growing up and what a wonderful man he was. Years ago I wrote to the Presbyterian archives in Philadelphia for information on Wharton and got nothing! In slide 23 is pictured a classroom in "La Progresiva" - this is a school my family helped to found and where my uncle went to school and met his wife! In the village I was born in Matanzas province, my family (the Vera side) also provided the land for the building of the first Presbyterian Church there. In the second set of slides, the ones of the Maine, there is also a slide of another school, Candler College. This is the school my siblings and I went to in Havana. We were there until the revolution when the school was taken over by the government. So everywhere I look in this collection I find a treasure-trove of illustrations and information both about my Maine project, my family history and the history of my native Cuba! It is even conceivable that my great-grandmother or other relatives might be pictured among the various images of the congregations. Who knows? Regardless, this set is going to be greatly appreciated by my family and I hope will be treasured by our daughters. Even if they do not wish to keep them, when we are gone, the collection will go to the Cuban Collection at the University of Miami, which is where my papers are deposited. So, in any case, they will be well cared for and cherished well into posterity.

Best,
Julio

The Battleship *Maine* entering the Havana Harbor on January 26, 1898. It was blown up three weeks later with a large loss of life, but 100 days after this a new republic was born.

Dr. Wharton, the Superintendent of the Presbyterian Schools in Cuba, shown with some members of the faculty of La Progresiva.

A physics lab in La Progresiva, in Cardenas, Cuba. There were 500 students enrolled at the time this photograph was taken.



Candler College in the suburbs of Havana.

## Tough Times for the Magic-Lantern – Then and Now

Terry Borton
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tborton@magiclanternshows.com

As a twenty-first century professional magic-lantern showman, I can tell you that times are tough these days. Every performer in the arts is suffering, and magic-lantern shows are no exception. The American Magic-Lantern Theater actually may be doing better than many of our performing colleagues because we have so many different kinds of venues to appeal to—theaters, historic sites, museums, festivals, schools, universities, film societies, etc.

Back in the nineteenth century, there were some tough times too, but the data are hard to come by. It's not too difficult to find out what kinds of shows were offered and who was giving them back then, as my wife, Debbie, and I discovered. We simply reviewed the newspaper records in our county for the first three months of 1895, and then used census data to project some rough estimates of what was happening nationally.[1] But it is much harder to find out how lantern shows fared financially, since that information is usually not reported in newspapers or other easily accessible sources. Luckily some venues kept such records. Here is a report on one, the Caldwell Farmers Club Hall, a 100-seat venue built in 1874 in Caldwell, Wisconsin.

One hundred and twenty years ago Caldwell was a small rural crossroads. Even today a Google aerial view shows hardly a house, and the internet's "WI Home Town Locator" refers to Caldwell not as a "town" or "village," but as a "community or populated place."

The Club's treasurer kept track of the proceeds from its various endeavors. The Hall and its records have now been moved to Old World Wisconsin in Eagle, Wisconsin, whose management kindly provided the following information.[2]

In its early days, the Hall did quite well financially, especially with sheep shearing and oyster suppers. On May 13, 1875, for instance, the Sheep Shearing Festival brought in $119.06.

As sheep farming decreased over the years, the proceeds from this yearly moneymaker dropped off. By 1893 a similar event brought in only $16.50. So the Club's officers seem to have turned to other sources—hall rentals for various events, including magic lantern shows. The subjects of these shows and the showmen are unidentified. No doubt the showmen were enterprising gentlemen who had been reading those ads in the popular press that told prospective

MAGIC LANTERNS AND STEREOPTICONS
afford the best and cheapest means of object teaching for Colleges, Schools and Sunday Schools. Our assortment of Views, illustrating art, science, history, religion and travel, is immense. For Home Amusement and Parlor Entertainment, etc., nothing can be found as instructive or amusing, while Church Entertainments, Public Exhibitions and Popular Illustrated Lectures
PAY WELL.
An instrument with a choice selection of Views makes a splendid Holiday present. We are the largest manufacturers and dealers, and ship to all parts of the world. If you wish to know how to order, how to conduct Parlor Entertainments for pleasure, or Public Exhibitions, etc., for MAKING MONEY, send us your name and address on a postal card (naming this paper), and we will mail you our 208 PAGE BOOK FREE
McALLISTER, Manufact'g Optician, 49 Nassau St., New York City.

Ads like this ran regularly in most major Victorian publications, and usually emphasized what a great money-making opportunity the magic lantern offered.

entrepreneurs that "Magic Lanterns . . . PAY WELL." Maybe the showman could even make $100! And no doubt the Club saw the magic lantern lifting their portion of the take back to the glory days of the Sheep Shearing Festival.

They should all have been more skeptical. What the showman took in, we don't know for certain. But the Club's revenues were disappointing.

A magic-lantern show at the Caldwell Hall in 1887 brought the Club a total of $.85. Six years later, on January 31, 1893, some showman tried again. Result for the Club: $1.15. The spigots really opened for a show on November 6, 1897. That night the Club's take was $3.00. (To get a sense of the equivalent in today's dollars, multiply these figures by 17.)

What might the showman's revenue have been? Since the Club's proceeds fluctuate so, it appears that they were taking a percentage of the gate—a common procedure, even today, though one I avoid. If the Hall took 50% (customary) then the

Caldwell Hall as it looks today at Old World Wisconsin. Halls like this were common in small towns, but their small size, combined with the low price of most magic-lantern tickets, meant low returns for the showman.

showman made the same as the amounts above. If the Hall took only 25% (generous) then the showman made $2.55, $3.45, and $9.00 respectively.

A very difficult problem for the showman to overcome was simply the Hall's size of 100 seats. At ticket prices of $.10 (the usual in small venues, as we can see from the posters), a sold-out hall would have brought in $10.

For a hall that was two-thirds full (the figure that optimistic theater managers today often use to calculate their finances), a ten-cent price would have brought in $6.00 to the showman. Less the Club's cut, such proceeds were a long bleak way from the magic-lantern pot of gold.

(When other technology came along, the novelty didn't improve the revenue of the showman or the Club much. A Gramophone Entertainment on Feb. 16 1903 netted the Club $2.00. A Moving Picture Show on August 8, 1906 brought in $4.80.)

By 1911 the lantern/movie industry was trying to accommodate to such problems. The Chautauqua Film Institute advertised in the Christian Herald that, "The charges for our services are paid out of your receipts *after* the entertainment has been given. No advance charges" (Emphasis in original).

Caldwell Hall provides just a small sample, of course, and it can't be typical, or the lantern industry would not have survived and prospered for so long. But the Hall's records do help remind us that the small-time lantern showmen had a very tough time of it. They certainly weren't making much beyond pin money in Caldwell.

But then, the big boys don't necessarily do well either—then or now. After last Christmas, half the shows on Broadway went dark. We're still kicking.

### Notes and References

1. Terry and Debbie Borton, "How Many American Lantern Shows in a Year?" in Richard Crangle, Mervyn Heard, Ine van Dooren, eds*., Realms of Light: Uses and Perceptions of the Magic Lantern from the 17th to the 21st Century* (The Magic Lantern Society, London, 2005), pp. 105–115. (We would be delighted to help others replicate this study in other towns).

2. Author's personal communication by email on 4/10/2009 with Robert Parker, Assistant Director, and Marty Perkins, Curator of Research, Old World Wisconsin, Eagle, Wisconsin. Their web site is http://oldworldwisconsin.wisconsinhistory.org/. My thanks to Robert Parker for bringing this material to my attention.

### THE AMUSEMENT BUSINESS IN HARD TIMES

#### Why some Magic Lantern Men are Happy

The amusement business was exceptionally dull in the fall of 1884, and the newspapers chronicled, almost daily, the failure of some theatrical combination. This produced something of a panic, which was felt in every branch of the business. Evidently the people were not going to spend money for mere entertainment.

Some Exhibitors packed up their apparatus and stayed at home, feeling confident that they saved money by so doing. Others ventured on the road in a half-hearted sort of way, advertising but little and wholly wanting in confidence.

Other Exhibitors put their Stereopticons in good condition, bought new Slides, prepared more elaborate advertising matter than ever before and started out to fight the Hard Times with a better equipment than ever before. They met the Hard Times, received some hard blows, but, as might be expected, they finally conquered the enemy. The men who were beaten in advance, as well as those who retreated in the beginning of the combat, were so many rivals out of the way. The people were more anxious for amusement than usual, and when the season advanced and prices were somewhat reduced, the men who held their ground and kept at it on the "try, try again" principle, found their audiences steadily increasing in numbers. These Lantern men are now happy.

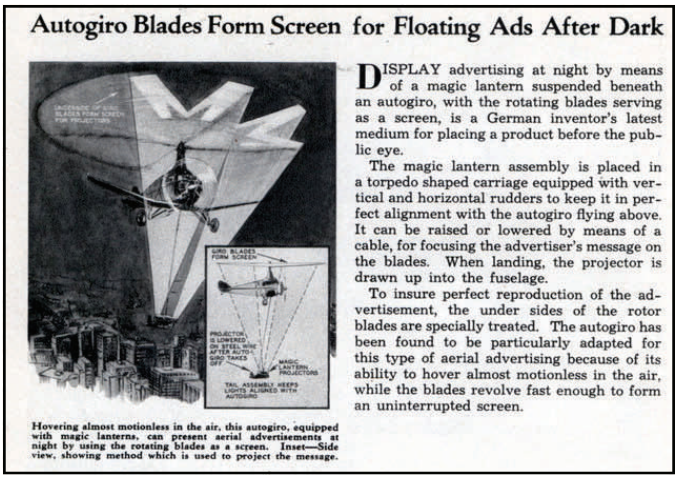
It is a well-known fact, that in times of business depression the people crave amusement as a relief from the annoyances of financial difficulties, and if prices are reasonable, the theatres and all public entertainments are well patronized. The Exhibitor who stayed at home should now stiffen up his backbone. There's a good time coming.

**From the *The Exhibitor* (a magic lantern journal published by C.T. Milligan, Philadelphia), February 1885.**

**Contributed by Larry Rakow**

PROFIT
$
Any one who possesses a moderate capital and plenty of push can make money in any locality by giving entertainments and illustrating lectures with a McAllister Magic Lantern or Stereopticon.
There is a constant demand for this class of entertainment by churches, schools, societies, lecturers and amusement bureaus.
A 250 page book that tells all about
McALLISTER'S
MAGIC LANTERNS
and STEREOPTICONS
—how to run them, how to give exhibitions—with complete lists of views and accessories, mailed for the asking.
T. H. McALLISTER, 49 Nassau St., N. Y.
76 Washington St., Chicago.

1896 Advertisement for McAllister magic lanterns and stereopticons. Wells collection.



**Autogiro Blades Form Screen for Floating Ads After Dark**

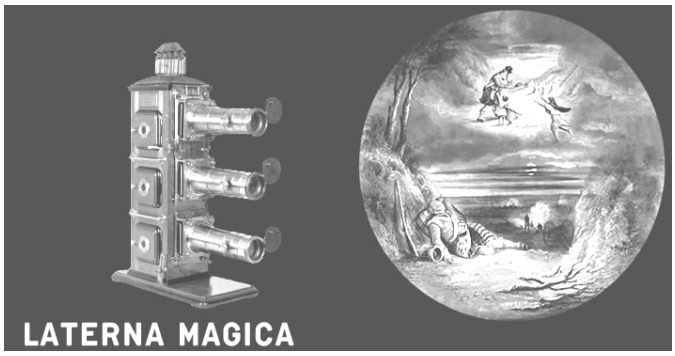
DISPLAY advertising at night by means of a magic lantern suspended beneath an autogiro, with the rotating blades serving as a screen, is a German inventor's latest medium for placing a product before the public eye.

The magic lantern assembly is placed in a torpedo shaped carriage equipped with vertical and horizontal rudders to keep it in perfect alignment with the autogiro flying above. It can be raised or lowered by means of a cable, for focusing the advertiser's message on the blades. When landing, the projector is drawn up into the fuselage.

To insure perfect reproduction of the advertisement, the under sides of the rotor blades are specially treated. The autogiro has been found to be particularly adapted for this type of aerial advertising because of its ability to hover almost motionless in the air, while the blades revolve fast enough to form an uninterrupted screen.

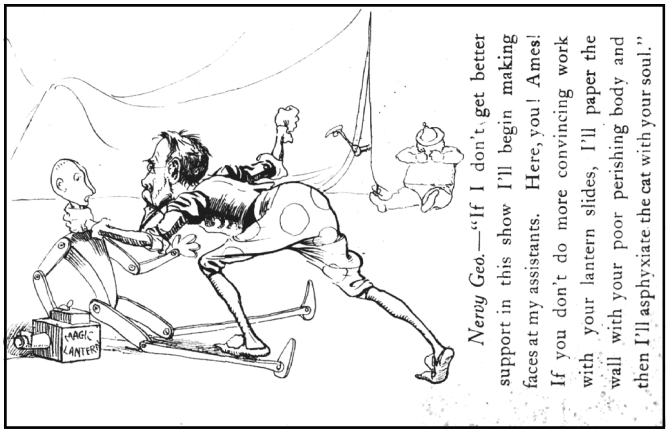
Hovering almost motionless in the air, this autogiro, equipped with magic lanterns, can present aerial advertisements at night by using the rotating blades as a screen. Inset—Side view, showing method which is used to project the message.

Terry Borton found this rather bizarre suggestion for the use of a magic lantern on the internet. It comes from *Modern Mechanix*, Sept. 1935. It is interesting in part for the rather late use of the term "magic lantern."




Dear Magic Lantern Society,

The Cinémathèque française has the pleasure to inform you that a new website presents magic lantern slides. For the moment, two collections are shown, more than 1500 Life Models slides and famous slides from the Royal Polytechnic Institution. Next autumn, Lapierre French slides will join this website. Please visit www.laternamagica.fr.

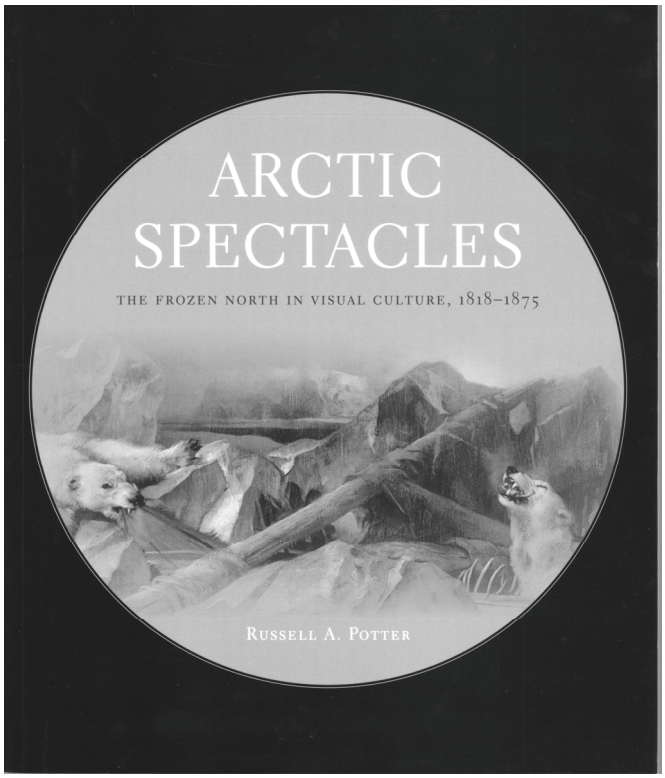

MAGIC LANTERN
Nervy Geo.—"If I don't get better support in this show I'll begin making faces at my assistants. Here, you! Ames! If you don't do more convincing work with your lantern slides, I'll paper the wall with your poor perishing body and then I'll asphyxiate the cat with your soul."

Left: Afternoon Coffee. Right: Sumaritrees standing, praying.

From Lindsay Lambert comes a copy of an article in a 2006 issue of *New England Journal of Photographic History* (pp. 35-37) on "The Accidental Find: Hand-colored Lantern Slides of the Middle East 1900 to 1920s" by Gunter Mueller. The author tells an interesting story of finding several hundred lantern slides and a projector in a Massachusetts antique shop some twenty years earlier. Many of the slides were of the Middle East and were produced by the American Colony Photographers, a company set up by American and Swedish missionaries who emigrated to Jerusalem in the 1880s. The article is illustrated with seven nicely reproduced hand-colored lantern slides (two are shown in black and white above). This journal is published by the Photographic Historical Society of New England, and their annual membership fees are modest ($15 student, $30 individual, $35 family). The society sponsors Photographica collectables shows in the Boston area each spring and fall. The next show is on October 24-25, 2009 at the Americal Center in Wakefield, Massachusetts. See their webpage at: http://www.phsne.org.

◄ Here is Lindsay Lambert himself, posing with a magic lantern for a tintype photograph taken last year in the Victorian Photography Studio in Gettysburg, Pennsylvania, a studio that caters to Civil War reenactors and tourists.

◄ From time to time, Lindsay Lambert has sent me odds and ends about magic lanterns, which don't always get into the *Gazette* right away. Who knows what is going on in this weird postcard, but it surely must rank as one of the strangest bits of magic lantern ephemera even seen.




**Russell A. Potter. 2007. *Arctic Spectacles. The Frozen North in Visual Culture, 1818-1875.* University of Washington Press, Seattle. ISBN 978-0-295-98680-7. $50.00 (hardcover), $35.00 (paperback). 258 pages.**

This attractively illustrated and well written book describes the impact of Arctic exploration in the early 19th century on visual spectacles, including still and moving panoramas and magic lantern shows. The focus is on the early period of polar exploration, including the many futile attempts to find an open-water Northwest Passage, the equally futile attempts to locate and rescue Sir John Franklin and his lost crew of explorers, and the early American expeditions of Elisha Kent Kane. It does not cover in detail the later period of polar exploration, including expeditions to the North Pole by Frederick Cook and Robert Peary.

The early chapters of the book describe mostly British polar expeditions and the representations of such expeditions in illustrated newspapers, stereographs, and especially fixed panoramas, such as Barker's original Panorama in London. In some places, the narrative becomes a bit confusing, as the author switches between Arctic panoramas exhibited in England and the same or similar shows exhibited in the United States.

Later chapters focus more heavily on American expeditions, particularly those of Elisha Kent Kane and Charles Hall. I found these chapters to be the best ones in the book, with a considerable amount of new material about moving panoramas of the Arctic, of which there was a surprisingly large number. The author is at a disadvantage in having to write about visual attractions that no longer exist, and he relies heavily on existing broadsides and pamphlets describing what the moving panoramas looked like. A number of interesting broadsides are illustrated in the book, and there also are color plates of large-scale paintings of the Arctic by artists such as Frederic Church and Sir Edwin Landseer. Also illustrated are a number of stereographic views and well-reproduced engravings from illustrated newspapers.

Magic lantern slides and mentioned in various chapters, including the use of projected images in conjunction with some panoramas. The book, however, is mostly about panoramas—magic lantern slides come in at the end with a discussion of the collaboration between the artist and photographer William Bradford and the Boston photographer, James W. Black, who exhibited stereopticon shows of Arctic photographs, or had others exhibit them under his name. The book's cover is misleading, because it looks like a magic lantern slide, but actually is just a circular photograph of a section of a large oil painting by Landseer. Although one of Black's magic lantern broadsides is reproduced in the book, the author has missed an opportunity for enhancing the appearance of the book by failing to include any photographs of lantern slides. The rather abbreviated treatment of magic lantern shows is due in part to the date chosen as the end-date for the book—1875 was just at the beginning of the popularity of lantern slide shows about Arctic exploration, with the heyday coming in the 1890s, as many of the leading explorers, including Cook, Peary, Nansen, and Amundsen embarked on a series of traveling lantern-slide lectures, in part to raise money. Peary, in particular, became a fixture on the lantern-slide lecture circuit in the 1890s, spending most of his spare time lecturing.[1]

This book has been reviewed previously in several scholarly journals, with a mixed reaction. One reviewer found it to be "a scholarly, extremely well-written book which interlinks 19th-century arctic exploration with the exposition of the Arctic and artistic and literary forms," pointing out that "the era of 19th-century exploration developed in parallel with the emergence of media such as the panorama, the magic lantern, and ultimately, the illustrated press."[2] Another reviewer praised the author for "soundly framing his researches on the Arctic imaginary in the evolution of popular visual culture from engraving and oil-paintings, through to the panorama and the stereoview."[3] A third reviewer was considerably less positive, finding the book "disconcertingly uneven" and "disappointing."[4] That reviewer chastises the author for failing to cite all of the most recent scholarship on Arctic exploration, including a number of important books. Potter's book is not, however, primarily a book about Arctic exploration, but rather the representation of the Arctic in popular visual culture. A more serious criticism is that "the

scholarship is under-referenced…. Volume and issue numbers for newspapers are not provided in captions; quotations do not always receive citations; and the bibliography does not include entries for all sources cited in the text and endnotes."

Despite these apparent flaws, I have a more positive reaction to the book than this last reviewer. I found it engaging to read and refreshingly devoid of academic jargon, and the layout and design are excellent. The book includes a useful appendix listing dozens of Arctic spectacles, from still and moving panoramas to magic lantern shows, in Britain and the United States, and giving details of dates, subject matter, exhibitors, and venues. This list is, by the author's own admission, inevitably is incomplete, and this certainly is true for the listing of magic lantern shows.

My major criticism of the book, other than the somewhat meager treatment of magic lanterns, is an over-reliance on broadsides and pamphlets and an under-use of the periodical literature, especially newspapers, many of which can be accessed online. One chapter devotes considerable space to the moving panoramas of Dr. Kane's Arctic exploits, exhibited by Dr. Edmund Beale, who was none other than the uncle of future magic lantern slide artist Joseph Boggs Beale. Based on existing broadsides, the author states that "the first American moving panorama of the Arctic [Beale's] debuted at the Odd Fellows Hall in Washington, D.C., in September 1855" (p. 120). In fact, the show started at least six months earlier. The *Trenton State Gazette* of Trenton, New Jersey, was advertising Beale's Arctic panorama in March 1855 and again in May of the same year, and it appeared in Lancaster, Pennsylvania in August, 1855.[5] In the appendix, the author notes that Beale's panorama "later appeared in Trenton, Philadelphia, and Boston," and went on a European tour in late 1857. He also mentions other appearances in Richmond, Virginia, and Newark, New Jersey, but seems to have missed Beale's exhibitions of the same panorama in several southern venues, including Columbus and Macon, Georgia (April, 1857), Charleston, South Carolina (June 1857 and February-March 1859), Arkansas (June 1859), and Montgomery, Alabama (December 1859).[6]

So this book clearly is not the last word on the subject, but it provides a good starting point for anyone interested in panoramas and other visual spectacles inspired by Arctic exploration in the 19th century.

**Notes and References**

1. Some discussion of Robert Peary's lantern slide lectures can be found in: Kelly Lankford. 2008. Arctic explorer Robert E. Peary's other quest: money, science, and the year 1897. *American Nineteenth Century History* 9:37-60.

2. Astrid E. J. Ogilvie. 2009. Review of *Arctic Spectacles*. *Arctic, Antarctic, and Alpine Research* 41:280-281.

3. Shane McCorristine. 2008. Review of *Arctic Spectacles*. *Journal of Popular Culture* 41:896-897.

4. I. S. MacLaren. 2009. Review of *Arctic Spectacles*. *Polar Record* 45:87-89.

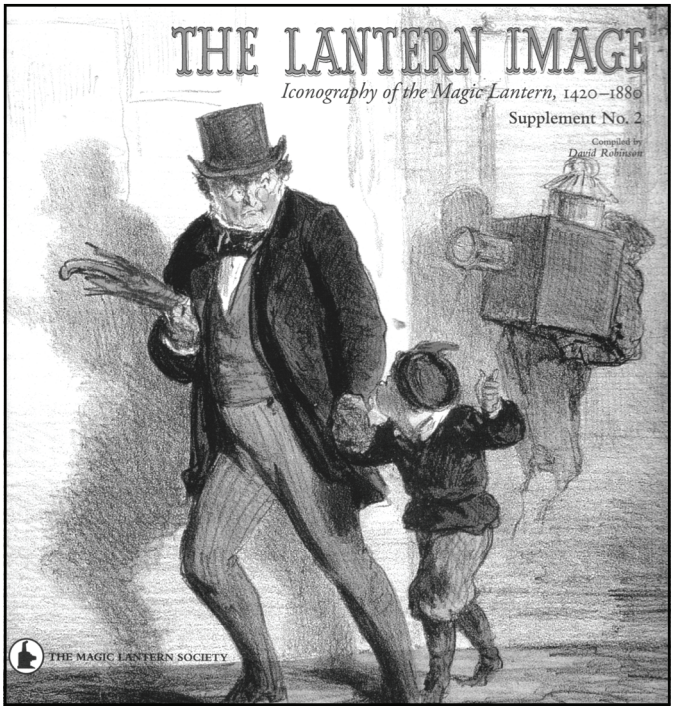
5. Advertisements for Beale's Panorama of the Arctic Searches for Sir John Franklin: *Trenton State Gazette*, March 13, 1855; May 4, 15, 18, 19, 1855; *Lancaster Intelligencer*, August 21, 28, September 4, 1855. The first newspaper mention of the panorama at Odd Fellows Hall in Washington that I have found is in *National Era*, September 27, 1855, which reported that the panorama opened on the previous Monday (September 24).

6. Advertisements for Beale's Arctic Panorama: Philadelphia *Public Ledger*, March 1, April 22, 1856; May 19, 1857; December 19, 1862; January 1, 7, 1863; Pittsburgh *Daily Morning Post*, July 1, 2, 3, 7, 8, 9, 12, 14, 15, 19, 1856; Pittsburgh *Daily Gazette and Advertiser*, July 8, 1856; Boston *Saturday Evening Gazette*, November 15, 22, 1856; July 4, 18, 25, 1857; Columbus, Georgia *Ledger-Enquirer*, April 18, 1857; *Macon Weekly Telegraph*, April 28, 1857; *Charleston Mercury*, June 5, 9, 10, 11, 12, 18, 1857; *Arkansas Gazette*, June 4, 1859; Montgomery, Alabama *Daily Confederation*, December 2, 9, 1859; *Philadelphia Inquirer*, December 15, 29, 1862; January 1, 2, 13, 16, 29, Feb. 4, 1863. Beale was from Philadelphia, so the frequent appearance of his panorama in Pennsylvania newspapers is not surprising. I have included here only advertisements that specifically refer to Beale's Arctic panorama; there were several other contemporary panoramas on the same theme by other exhibitors, who are not always identified in newspaper ads.—**The Editor**.

**André Gaudreault, ed. 2009. *American Cinema 1890-1909*. Rutgers University Press, New Brunswick, NJ. ISBN 978-0-8235-4443-4. 268 pages. $24.95 (paper).**

This book is part of a series from Rutgers University Press called "Screen Decades," with a volume devoted to each decade from 1890 to the 1990s. Because this volume deals with the earliest years of the cinema, magic lanterns appear frequently.

The authors represent the major scholars working on the early history of the cinema—André Gaudreault, Tom Gunning, Charles Musser, Lauren Rabinovitz, Eileen Bowser, and others. The series appears to be aimed mostly at undergraduates in film and cinema studies courses, and is not meant to be a work of primary scholarship. Footnotes are relatively meager, while the bibliography contains a mixture of secondary sources and articles from early 20th century periodicals. For those familiar with Charles Musser's *The Emergence of Cinema: The American Screen to 1907*, there may be a certain sense of authors re-plowing old ground. Some of the most frequent phrases in many chapters are ones like "As Musser has shown..." or "Musser asserts that…". Nevertheless, the book provides a well written, short introduction to early American cinema and its connections to earlier magic lantern shows.—**The Editor**.


THE LANTERN IMAGE
Iconography of the Magic Lantern, 1420–1880
Supplement No. 2
Compiled by David Robinson
THE MAGIC LANTERN SOCIETY

**David Robinson 2009. *The Lantern Image. Iconography of the Magic Lantern, 1420-1880. Supplement No. 2.* The Magic Lantern Society, London. 33 pages. ISBN 978-0-9510440-8-7-9. £ 8.00 plus postage (paperback).**

In this wonderfully illustrated volume, David Robinson has continued his heroic quest to find every known picture of a magic lantern or a magic lantern show. The book is organized in the same way as the previous volumes, with numbered captions in chronological order, giving bibliographic details and brief descriptions of what the illustrations show. Most are engravings reproduced in black and white, but some are color prints. The earliest illustration in this volume is from 1684, the latest from 1903, so it extends beyond the date range in the title. Every magic lantern collector and scholar should own this book, because there are many treasures here. Two of my favorites are an engraving of women in a Nuremburg toy factory painting tin toys, including magic lanterns (p. 28), and the engraving below of a shop full of magic lanterns for sale.

**Isobel Armstrong. 2008. *Victorian Glassworlds. Glass Culture and the Imagination 1830-1880.* Oxford University Press, New York. 449 pages. ISBN 978-0-19-920520-2. $60.00 (hardcover).**

This is a work of breathtaking scholarship, which attempts nothing less than a reorientation of our thinking about Victorian culture and the impact of glass manufacturing on culture and literature of the period. If you have an interest in anything to do with glass in the 19th century—the manufacture of glass, the design of glass objects, the building of the Crystal Palace and other glass buildings, the transformation of commercial architecture in cities, or the use of glass in optical instruments, including the magic lantern—then this is the book for you. The book is loaded with all sorts of interesting illustrations: engraving of the Crystal Palace, pictures of glass objects displayed at the Great Exhibition, fine-art paintings depicting mirrors and windows, pictures of magic lanterns, lantern slides, and other optical toys, etc. The layout and design of the book are exceptionally good.

The 14 chapters of the book are divided into three sections. The first deals with the industrial manufacture of glass, with implications for everything from the price of windows and other glass commodities to labor relations in factories and riots by disgruntled workers that led to much breaking of glass. The manufacture of glass in large sheets was a 19th century innovation, which allowed for the mass production of window glass, as well as construction of glass-and-iron buildings like the Crystal Palace and many Victorian greenhouses and conservatories. The second part of the book further develops the theme of how manufacture of glass panels affected Victorian culture, especially with regard to windows, mirrors, and glass walls. One fascinating part of the book is Chapter 6, "Glassing London," which shows how the availability of large glass panels made possible the complete alteration of commercial city architecture. The sort of store architecture we tend to take for granted now, with street-level floors encased in glass display windows to highlight the goods being sold, was not possible until the manufacture of plate glass was perfected.

The final section of the book, "Lens-Made Images: Optical Toys and Philosophical Instruments," will be of most interest to readers of the *Gazette*. Here we find a thorough discussion of magic lanterns, dissolving views, microscopes, stereoscopes, and other optical devices, along with many digressions detailing the impact of such devices on contemporary culture and literature.

It must be said that this is not the easiest book to read—the author makes few concessions to readers unfamiliar with Victorian culture and literature, and she has a propensity for using words like "elided" that most of us don't use. At times the academic jargon and critical theorizing becomes a bit dense, with references to every cultural critic from Karl Marx to Walter Benjamin, Michel Foucault, and Jacques Lacan. Nevertheless, those who invest the time needed to understand this book will be richly rewarded.—**The Editor**.

## The Research Page

The Research Page provides summaries of recent academic articles that relate to the magic lantern in a variety of disciplines. This issue's Research Page focuses on the use of magic lantern metaphors in literature from the 18th to the 20th century.

**Alan Bewell. 2009. Erasmus Darwin's cosmopolitan nature. *English Literary History* 76:19-48.**

Alan Bewell's article focuses on the poetry of Erasmus Darwin, the 18th century polymath now best remembered as the grandfather of Charles Darwin. In his day, Erasmus Darwin was considered to be one of the leading physicians in England, and he had a wide range of friends and acquaintances among scientists and inventors who were at the heart of the English industrial revolution. Darwin, along with Josiah Wedgwood, Mathew Boulton, James Keir, James Watt, and Joseph Priestly, was a member of the Lunar Society, a group that met in Birmingham on each full moon to discuss the latest developments in science and industrial technology. There is no doubt that all of these men would have been familiar with optical instruments such as the magic lantern. Bewell analyzes Darwin's long scientific poem, *The Botanic Garden*, both in relation to contemporary developments in botany and in terms of the visual imagery used in the poem. This really is two poems, *The Loves of the Plants*, with a central theme of sexual reproduction, and *The Economy of Vegetation*, which focuses on the ecology of plants. Bewell argues that "Much of the technical virtuosity of the poem arises from Darwin's effort to create verbal images that would powerfully convey their free movement. Here his commitment to the new and novel is clear. In a period that witnessed the advent of new technologies for producing moving virtual images—the magic lantern, the Eidophusikon, the phantasmagoria, and the diorama—Darwin adopts in the Poem the language of a London showman at a 'camera obscura' exhibit, encouraging those 'at leasure for such trivial amusement, [to] walk in, and view the wonders of my Inchanted Garden.'" Darwin goes on to say that each plant will be shown, "dancing on a whited canvas, and magnified into apparent life" (Bewell, p. 29). In fact, Darwin often mixed together allusions to different sorts of optical devices—the magic lantern, camera obscura, peepshow, and panorama. At one point he has a narrator in the poem compare his poem to a peepshow or panorama: "In the manner you have chained them together in your exhibition, they succeed each other amusingly enough, like prints of the London Cries, wraped [sic] upon rollers, with a glass before them" (Bewell, p. 29). Bewell mentions in a footnote, but does not quote in full, another passage that makes explicit reference to a magic lantern show, and compares it to the physiology of vision. We know that this refers to a magic lantern, because in the Table of Contents for the poem, line 139 is listed as "Magic Lantern."

> Slow could the tangent organ wander o'er
> The rock-built mountain and the winding shore;
> No apt ideas could the pigmy mite,
> Or embryon emmet to the touch excite;
> But as each mass the solar ray reflects,
> The eye's clear glass the transient beam collects;
> Bends to their focal point the rays that swerve;
> And paints the living image on the nerve.
> So in some village-barn, or festive hall,
> The spheric lens illumes the whiten'd wall;
> O'er the bright field successive figures fleet,
> And motley shadows dance along the sheet.—
> Symbols of solid forms is colour'd light,
> And the mute language of the touch is sight.
>
> *The Loves of the Plants*, lines 131-144

**Laurie Garrison. 2007. The visual subject, c. 1810-1840: Trends in Romanticism and Victorianism. *Literature Compass* 4:1078-1091.**

This article reviews recent scholarly work on visual themes in literature, mostly English, in the period from 1810 to 1840, a period that saw "the invention of the Daguerrotype, the stereoscope and the kaleidoscope, which took place within an entertainment culture already populated with magic lantern shows, phantasmagorias, panoramas and other forms of exhibition culture" (p. 1078). The author devotes the first several pages of her review to Jonathan Crary's *Techniques of the Observer* (1990), a seminal text for scholars and literary critics writing about nineteenth century visual culture. Oddly, she does not mention his later book, *Suspensions of Perception* (1999), which has a much more detailed discussion of visual perception and all manner of optical instruments from magic lanterns to praxinoscopes and stereoscopes. Some of her discussion lapses into academic jargon that can be hard to follow, although no more so than some of Crary's own writings. For example, writing about the kaleidoscope and stereoscope, she states that "Each sense, as a minute component of the body could be isolated and studied individually to determine the limits of exploitation in industrial production, as in human capacity for work in factories, and as a stimulus to commodity consumption. This is the origin of the kaleidoscope and stereoscope. Both isolate the visual sense and disorient the viewer, offering an uncanny, abstract form of viewing" (p. 1080). Quoting Crary, she goes on to state that this "makes the viewer susceptible to a form of 'visual nihilism' that is just pleasurable enough to conceal the machinations of power." It isn't clear to me that this sort of theory really captures what was going on when Victorian families looked at stereographs in their parlors.

Other writings that Garrison reviews that relate more directly to magic lanterns include Terry Castle's work on

the literary history the phantasmagoria [*Critical Inquiry* 15 (1988):26-61], Kate Flint's book on *The Victorians and the Visual Imagination* (Cambridge University Press, 2000), Susan Horton's chapter "Were They Having Fun Yet? Victorian Optical Gagetry, Modernist Selves" [In: Carol T. Christ and John O. Jordon, eds., *Victorian Literature and the Victorian Visual Imagination* (University of California Press, 1995)], and John Plunkett's work on "Optical Recreations and Victorian Literature" [*Essays and Studies* 58 (2005):1-28]. Horton and Plunkett, in particular, discuss magic lanterns in some detail, as well as literary references to magic lanterns by writers such as Charles Dickens and George Eliot. Garrison also reviews a number of books that deal with the relationship between panoramas and literature. Even if one does not accept all of the theoretical interpretations in this article, it provides a valuable starting point for anyone wishing to dig deeper into the interaction between optical devices and 19th century literature.

**Kevin Z. Moore. 1997. Viewing the Victorians: recent research on Victorian visuality. *Victorian Literature and Culture* 1997:367-385.**

Although this is an older paper, it is worth discussing here, because like Garrison's article, it provides a review of scholarly writing on Victorian optical culture, including photography, cinema, magic lanterns, phantasmagoria, zoetropes, thaumatropes, and other forms of visual entertainment. In contrast to many writers in this field, however, Moore has little use for much of what constitutes theory in literary and cultural studies, particularly what he considers over-reliance on the writings of 20th century critics like Walter Benjamin and Michel Foucault, whose works he sees as philosophically and historically questionable. He also takes a fairly dim view of the work of Jonathan Crary, which tends to dominate this field. He argues instead for a more thorough study of what these optical instruments actually were and how they worked, and how this in turn affected literary works of the period. He focuses not so much on Crary's notion of "new ways of seeing," but instead on new ideas of representation in 19th century art and literature, as influenced by everything from illustrated newspapers to magic lanterns. He echoes Jane Rabb's critique of academic training of scholars of the Victorian era [*Literature and Photography, Interactions 1840-1990*, University of New Mexico Press, 1996] for its neglect of the history, practice, and aesthetics of photography, which he says is like teaching Renaissance literature without any reference to the development of machine-enhanced perspective painting. Presumably Victorianists would benefit as well from greater knowledge of other aspects of visual culture, including magic lanterns, as demonstrated by the work of several current scholars, including John Plunkett and Helen Groth, who really understand magic lanterns, phantasmagoria shows, and other forms of optical entertainment. For anyone who finds it hard to wade through the academic jargon of postmodernist theory that characterizes many current writings in literary and cultural studies, Moore's paper provides a refreshing antidote.

**Helen Groth. 2009. Domestic phantasmagoria: the Victorian literary domestic and experimental visuality. *South Atlantic Quaterly* 108:147-169.**

Helen Groth, who previously has written about the influence of the magic lantern on the writings of Charles Dickens, is one of the best-informed literary scholars who seek to connect the Victorian interest in optical devices with Victorian literature. She is unusual in that she not only cites the relevant literary works, but also is thoroughly familiar with 19th century works on optics and magic lantern projection, and she often cites recent work by magic lantern scholars. She is skeptical of Jonathan Crary's arguments about 19th century optical instruments ushering in a new way of seeing, or his view that such devices increased the alienation of the viewer and the subjectivity of perception. She argues, in fact, that instruments like the stereoscope actually increased awareness of reality, "focusing the eye on details of objects and the interplay between light and matter" (p. 153). In her view, the fact that magic lanterns, stereoscopes, and other optical devices were so familiar in Victorian homes actually enhances and reinforces the use of optical metaphors in contemporary writing. "To describe Dorothea Brooke's mind as a series of magic lantern transparencies, as George Eliot does in *Middlemarch*, for example, or to speak of the 'kaleidoscope of the imagination' when describing the rich inner life of her heroine, as Charlotte Brontë does in *Jane Eyre*, creates a familiar point of entry for the reader into the psychic life of each character" (p. 149). Furthermore, because "both the magic lantern and the kaleidoscope were such familiar forms of entertainment throughout the century," literary descriptions of psychological responses "viewed through such familiar optics were made to seem only too real to Victorian readers in ways that might not immediately seem so meaningful or convincing to twenty-first-century readers" (p. 149).

Groth further examines the theme of Victorian familiarity with such optical devices by quoting from a variety of playbooks and manuals of rational recreation that enjoyed widespread popularity, such as John Ayrton Paris's *Philosophy in Sport Made Science in Earnest* (1827) and John Henry Pepper's *The Boy's Playbook of Science* (1860), both of which are very familiar to magic lantern collectors and scholars. Indeed, in contrast to audiences for early phantasmagoria shows, Victorian audiences were seldom mystified by optical effects, such as Pepper's ghosts exhibited in plays, because the showmen themselves often gave detailed lectures explaining how the illusions were produced. Similarly, handbooks such as those written by Paris and Pepper not only explained the basic principles behind optical effects produced in magic lantern shows, but also invited ordinary readers to participate in producing such effects in their own homes. Groth argues that it was this very familiarity with how optical devices like magic lanterns worked that made literary allusions to the devices, like those of George Eliot and Charlotte Brontë, so powerful.

**Sally B. Palmer. 2006. Projecting the gaze: the magic lantern, cultural discipline, and *Villette*. *Victorian Review* 32:18-40.**

If Helen Groth's article represents the best blending of scholarship on the magic lantern and literature that illuminates the relationship between optical devices and literary devices, Sally Palmer's paper does the opposite. The author shows little firsthand familiarity with magic lanterns, and she envelops her analysis in a cumbersome theoretical framework drawn from the work of the French philosopher Michel Foucault. As a result, her article does more to obscure than illuminate Charlotte Brontë's writing.

At first glance, the article seems promising enough—there are many illustrations of magic lanterns and slides, although nearly all of these are simply copied from Steve Humphries' book, *Victorian Britain Through the Magic Lantern*. The trouble starts early, in the first paragraph, where the author writes, "With its increasingly sophisticated use of projection, magnification, transparency, and mechanical optical techniques, one of the most popular amusements, both public and private, was the stereopticon or magic lantern show" (p. 18). Fair enough, but Brontë's *Villette*, the subject of this article, was published in 1853, seven years before the appearance of the word "stereopticon," and in any case, the word would not have been used in Charlotte Brontë's England.

The second paragraph gives a taste of the theoretical framework used throughout the paper:

> The eighteenth– and nineteenth-century rise of magic lantern entertainment both parallels and echoes Foucault's shift in punishment from punitive spectacle to prophylactic surveillance. On one level, the magic lantern's seeing gaze pierces secrecy and turns bourgeois spectators into voyeuristic self-police, a process that works to secure not only cultural submission but also assent. On another level, the stereopticon slide becomes a metaphor for the transparency and elision of discourse itself, dissociating seeing from being and suggesting the gap between visibility and non-visibility so important in the lantern show's "dissolving views." Bronte's Villette, a novel "preoccupied with the nature of vision," appropriates the magic lantern's imaginative projection, magnification, and subjective diffusion to provide literary "penal theater" that, in a Foucauldian view, privatizes repression even as it challenges strategies of ocular domination (p. 18).

To be honest, I really don't know what this means, but I am pretty sure that it does not enhance our understanding of 19th century magic lantern shows or their impact on literature. This sort of Foucauldian language permeates the entire paper and makes it very difficult to follow the author's thesis, exactly the sort of problem pointed out in Kevin Moore's review.

Another problem with this paper is that the author tends to mix up the chronology of the magic lantern and confounds different types of lantern shows. She seems to imply (p. 20) that dissolving view shows preceded phantasmagoria shows, instead of the other way around. She states, inaccurately, that it was the invention of limelight that "enabled the projector [showman] to emerge from his previous position behind the screen and stand at the back of the hall, behind his audience" (p. 19). In one passage, she refers to a character in *Villette*, Lucy Snowe, suggesting that her "prowling, peeping world of confining and darkened rooms," like "the dim salons where early Victorian spectators enjoyed the fantasy of surveillant power, accommodates stereopticon-like romantic phantasmagoria, dissolving illusions, slip-slide characters, Christian pedantry, and foreign travelogue" (p. 33). Given that the realistic photographic projections of the stereopticon and the illusions of the phantasmagoria produced opposite sorts of responses from viewers, the phrase "stereopticon-like romantic phantasmagoria" simply doesn't make sense.

Finally, the author sums up her thesis as follows:

> I would like to be able, with other critics, to claim for Villette the ability to undermine prevailing regulatory ideals through its diffusive, elusive, and confusing techniques challenging ocular validity. Certainly this novel, many magic lantern shows, and other visual and discursive texts wielding similar techniques seem provisionally to subvert the authority of the panoptic gaze. By the fact of acknowledging ambiguity, visual paradox, reversal, and unrest, however, they simply create a space where readers or viewers can confront their own unresolved perceptions" (p. 38).

I don't get it. This article has enough passages from *Villette* that seem to evoke magic lantern imagery to suggest that I should read the book myself, but it does very little to clarify Charlotte Brontë's use of magic lantern metaphors.

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**Ann C. Colley. 1997. Robert Louis Stevenson and the idea of recollection. *Victorian Literature and Culture* 1997:203-223.**

Here we have a paper written some years ago, but nevertheless relevant to the literary theme of this Research Page. Colley's article focuses on Stevenson's notions of memory or recollection, and she identifies several optical metaphors to be found in his writing about recollection: the magic lantern, the kaleidoscope, the mirror, and the thaumatrope (which is illustrated in the article). Stevenson did not always refer directly to these devices; his language was more subtle, as in these lines that evoke a magic lantern: "So, as in darkness, from the magic lamp/The momentary pictures gleam and fade/And perish, and the night resurges—these/ Shall I remember, and then all forget" ("To My Old Familiars").

**Heather Fielding. 2009. "The Projection of His Consciousness": James and narrative technology. *Modern Language Quarterly* 70:223-243.**

Henry James thought novels should make readers work hard to understand them, a concept that will come as no surprise to many who have been assigned to read his novels in college literature classes. He decried what he considered less literary forms of writing, like detective stories, which readers could consume for the ending. He argued that for many people, reading a novel is "an exercise in skipping." Heather Fielding argues in this article that in his theory of narrative fiction, James used analogies to the magic lantern and film as "technologies that compensate for mass culture's end-driven tendencies" (p. 226). His argument was that while readers could read a novel in a variety of ways, even skipping whole sections of it, they could not view magic lantern shows or films in this way, because these technologies are not under the control of the viewer (this, of course, being before the era of VCRs, DVDs, and digital recording devices, all of which allow the viewer to skip ahead, or even change the ending of a film).

Fielding explores James's use of the magic lantern metaphor in some detail, citing passages not only from his novels, but from prefaces to his novels in which he painstakingly explains his theory of what a novel should be. One passage comes from his novel *What Maisie Knew*: "She was taken into the confidence of passions on which she fixed just the stare she might have had for images bounding across the wall in the slide of a magic-lantern. Her little world was phantasmagoric—strange shadows dancing on a sheet" (p. 229). In the preface to *The Ambassadors*, James argued compared the consciousness of the main charater, Lambert Strether, to "an image projected onto the novel's subject matter" (p. 230). Earlier in the same preface, James stated that the real person who inspired the character of Strether "project[s] upon that wide field of the artist's vision—which hangs there ever in place like the white sheet suspended for the figures of a child's magic-lantern—a more fantastic and more moveable shadow" (p. 232).

Fielding disagrees with other literary critics, who often view the magic lantern as obsolete technology, a "primitive form of spectacle" (p. 233). She argues that James saw the magic lantern as part of a continuum of projection technology leading to film, with the magic lantern being defined by its ability to produce changeable images "whose most important characteristic is that they travel before a passive, detached viewer" (p. 234). She says that many modernist critics rejected the analogy between film and literature specifically because the viewer of a film has less control over it than does the reader of a novel. James, on the other hand, believed that the necessity for viewers to watch a film from beginning to end was the essence of what a good novel should be—something that cannot be easily consumed by skipping ahead to the end. Finally, Fielding argues that while James was critical of photography, he viewed film, not still photography, as the full realization of the magic lantern, with its constant movement between multiple images.

**Jon Roberts. 2003. Mortal projections: Thomas Hardy's dissolving views of God. *Victorian Literature and Culture* 2003:43-66.**

This article, written several years ago, analyzes Thomas Hardy's view of God, as revealed in his poetry. In many of his poems, God seems to have an ephemeral existence, always ready to disappear like dissolving views in a magic lantern show. One poem makes this metaphor explicit, "A Plaint to Man" (1909-1910):

> When you slowly emerged from the den of Time,
> And gained percipience as you grew,
> And fleshed you fair out of shapeless slime,
>
> Wherefore, O Man, did there come to you
> The unhappy need of creating me --
> A form like your own -- for praying to?
>
> My Virtue, power, utility,
> Within my maker must all abide,
> Since none in myself can ever be,
>
> One thin as a shape on a lantern-slide
> Shown forth in the dark upon some dim sheet,
> And by none but its showman vivified.
>
> 'Such a forced device,' you may say, 'is meet
> For easing a loaded heart at whiles:
> Man needs to conceive of a mercy-seat
>
> Somewhere above the gloomy aisles
> Of this wailful world, or he could not bear
> The irk no local hope beguiles.'
>
> -- But since I was framed in your first despair
> The doing without me has had no play
> In the minds of men when shadows scare;
>
> And now that I dwindle day by day
> Beneath the deicide eyes of seers
> In a light that will not let me stay,
>
> And to-morrow the whole of me disappears,
> The truth should be told, and the fact be faced
> That had best been faced in earlier years:
>
> The fact of life with dependence placed
> On the human heart's resource alone,
> In brotherhood bonded close and graced
>
> With loving-kindness fully blown,
> And visioned help unsought, unknown.

**Helen Groth. 2007. Kaleidoscopic vision and literary invention in an "Age of Things": David Brewster, *Don Juan*, and "A Lady's Kaleidoscope." *English Literary History* 74:217-237.**

In this article, Helen Groth once again exhibits her ability to combine research on the history of 19th century optical devices with literary history. Her focus is on David Brewster and the invention of the kaleidoscope. She provides a thorough discussion of the history of the kaleidoscope and its cultural reception, as well as the use of kaleidoscopic metaphors in the writings of Lord Byron, Samuel Taylor Coleridge, and the Scottish poet Anna Jane Vardill. Early on, she sets aside theoretical discussions of kaleidoscopic vision by writers such as Charles Baudelaire, Walter Benjamin, and Jonathan Crary, arguing that such theoretical approaches have "contributed to the continuing abstraction of the kaleidoscope from its material history, as it circulates as both evocative citation and authenticating historical trace in countless essays on vision and modernity" (p. 219). She advocates a return to considering the actual history of the kaleidoscope and its reception in the 19th century as a way of understanding its integration into literary texts.

An interesting connection between the kaleidoscope and the magic lantern was suggested by Brewster himself in his book on the history of the kaleidoscope, published in 1858. He described a way of projecting images from a kaleidoscope on a screen using an "electric lime ball" (limelight):

> The coloured objects might be fixed between the long stripes of glass, moved horizontally or obliquely across the ends of the reflectors; and the effects thus obtained might be varied by the occasional introduction of revolving object boxes, containing objects of various colours and forms, partly fixed and partly movable. Similar forms in different colours, and in tints of varying intensity, losing and resuming their peculiar character with different velocities, and in different times, might exhibit a distinct relation between the optical and acoustic phenomena simultaneously presented to the sense. Flashes of light, coloured and colourless, and clouds of different depths of shadow, advancing into, or emerging from the centre of symmetry, or passing across the radial lines of the figure at different obliquities, would assist in marking more emphatically the gay or the gloomy sounds with which they were accompanied (quoted in Groth, p. 225).

According to Groth, Brewster's idea of a projecting kaleidoscopic phantasmagoria never materialized, but a simulation of its effects was produced by dissolving views in a lecture on kaleidoscopic vision by John Henry Pepper, delivered at the Royal Polytechnic Institute in 1866. Of course, less elaborate kaleidoscopic effects were the essence of the chromatropes that became a central part of magic lantern shows throughout the 19th century.

**David Trotter. 2006. T. S. Eliot and cinema. *Modernism/modernity* 13:237-265.**

I began this series of research paper summaries with a passage from one of Erasmus Darwin's poems comparing the physiology of vision to a magic lantern projecting an image on the optic nerve of the eye. About a century later, T. S. Eliot made a similar allusion to a magic lantern in "The Love Song of J. Alfred Prufrock" (1911):

> It is impossible to say just what I mean!
> But as if a magic lantern threw the nerves in patterns
> on a screen:
> Would it have been worth while
> If one, settling a pillow or throwing off a shawl,
> And turning toward the window, should say:
> "That is not it at all,
> That is not what I meant, at all."

David Trotter discusses Eliot's use of the magic lantern metaphor in some detail in a paper mostly devoted to the influence of cinema on Eliot's writing. Many literary critics have argued that a distinctive "modernist" style of writing was heavily influenced by cinema, with its close-ups, tracks, pans, and cuts from one scene to another. Trotter prefers to think of the "cinematic" style in film and literature as evolving in parallel, rather than either one directly impacting the other. This seems like a reasonable position, considering that many 19th century authors were said to have a "magic lantern style" of writing, with frequent changes between scenes, well before cinema existed.

In his analysis of the magic lantern reference in Eliot's poem, Trotter says, "Two aspects of Eliot's development of the magic lantern as a figure for the way in which the mind works are worth mentioning. First, he stresses the force of projection: the image *thrown* onto or against the screen. There can be no doubting the power of the mind's internal light source" (p. 245). He contrasts this with Charles Baudelaire's use of the metaphor of the kaleidoscope, in which the viewer becomes a passive observer. "Secondly, the nerves thrown violently onto the screen have at least been thrown onto it in a pattern. The shape the beam of light has taken is intelligible."

Trotter then draws a parallel between the structure of magic lantern shows, often accompanied by music or a lecture, and early film, which frequently had similar accompaniment. He argues that Eliot's reference to the magic lantern in 1911, when it was slightly archaic, was intended to show the predicament of Prufrock: "He has had the experience...but missed the meaning. The magic lantern—the kind of technology, genteel and old-fashioned, with which Prufrock feels at home—intervenes. It cannot restore meaning to experience. But its automatism has created a pattern, there, on the screen, for exploration…" (p. 245).

**Rat Catcher: Man sleeping, awakes, and swallows one rat after another in quick succession. Very laughable. Each $3.25**

1897 *Sears Roebuck & Co. Catalogue*

The rat-catcher slide is one of the most famous of all magic lantern motion slides. It is not clear when the first such slide was made, and individual slides are almost impossible to date accurately. Probably it was available at least by the 1850s. Because the slides were mostly hand-painted, each slide is slightly different, as shown on this page and the front and back covers. The round images are rotary-crank slides; the others are slip slides.

Rat-catcher slides from the collections of Kentwood D. Wells, Terry Borton, Dick Moore, and Dick Balzer.

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